

ABSTRACT

The invention relates to a thermal destruction process for at least one organic or halogenated organic product in liquid, gaseous or powder form. The process includes :

- mixing:

- of the aforementioned one or more organic products with water in sufficient quantities to ensure that at least stoichiometric ratios between atoms of carbon and oxygen in the mixture are obtained,

or

- of the aforementioned one or more halogenated organic products with water in sufficient quantities to ensure that at least the stoichiometric ratios for, on the one hand, atoms of carbon and oxygen in the mixture, and on the other hand, for hydrogen and halogen atoms in the mixture are obtained,

- introduction of this mixture and of plasmagenic gases into the coil of an inductively coupled plasma torch to produce gas in which decomposition into atomic elements has occurred,

- an initial thermal destruction operation of the aforementioned gas in which decomposition into atomic elements has occurred, this initial destruction operation taking place in a reaction chamber,

- a second thermal destruction operation of the gas that has undergone the initial destruction operation, this second destruction operation taking place in a

- stirring device with no energy being added, this gas which undergoes the second thermal destruction operation being stirred with air and/or oxygen,
- recombination by cooling of at least a part of the
 - 5 gas emerging from the stirring device,
 - discharge of the gas that has been destroyed.

The invention also relates to a device that allows this destruction process to be applied.

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No figure.